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PNDF-01194

** AMENDMENT WITH RCE **

00760070aa

Amendment dated 08/02/2004

Reply to office action mailed 03/31/2004

REMARKS

Claims 1-22 are currently pending in the application. By this amendment, claims 1 and 3-22 are amended for the Examiner's consideration. The foregoing separate sheets marked as "Listing of Claims" shows all the claims in the application, with an indication of the current status of each .

In the specification and in the Abstract, syntax and translation errors have been corrected. No new matter has been added.

The Examiner has rejected claims 1-22 under 35 U.S.C. §102(a) as being anticipated by U.S. Patent No. 6,476,825 to Croy et al. ("Croy"). Croy discloses a methodology for navigating through a hierarchy of menus, where the menus and submenus (e.g. including current television programming) can be downloaded to the navigation device. The display provided on the navigation device allows display of two menu levels, with selection (via "softkeys" adjacent to the menu items) of a menu item on one vertical list of menu items results in display in the second vertical list of menu items of a list of menu items on the level below the selected item in the hierarchy. A status area of the display shows a history of the selected items, so that the user will know where he is in the navigation up and down the hierarchy.

However, the navigational methodology disclosed in Croy is not related to the present invention. The present invention addresses the prior art problem that users who frequently use an operational procedure involving a sequence of functions provided on a device are not able to give a name to that sequence and assign the sequence to a softkey. The invention as described in claim 1 provides input, storing and display sections, respectively, for input of key operations by a user, storing and then displaying these key operations as a combination. The invention then provides, in particular, a non-volatile memory section for storing a series of selected key-input

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combinations an operational procedure. Each of the combinations comprises key-input information selected by the user from the displayed key-input information. The user, in making the selection, has available to him or her the various editing capabilities described in Fig. 3.

Croy does not disclose or suggest such a capability. While Croy provides for downloading new and updated menu items, there is no suggestion in Croy that the user is able to instruct the system, for example, to create a new menu item as a combination of existing menu items. Furthermore, the hierarchical structure of the menu items, in light of the evident purpose of the control device to navigate through the hierarchy, does not lend itself to the kind of display required for such a combination. For example, if the teachings of the present invention were to be applied to the hierarchical structure of menu items shown in Croy, the idea would be to allow the user to collapse a sequence of menu selections (e.g. the sequence of selections shown successively in Figs. 16-18 of Croy) into a single selection, so that the next time the user wanted to navigate to a particular item he could simply select one item. However, it is not evident how such a collapsed menu item would be incorporated into the Croy hierarchy. Indeed, from the teachings of Croy, such a collapsed menu item would be at cross purposes with the concept of using the vertical lists of menu items to show items at a particular level in the hierarchy below a selected level. A sequence of menu selections is displayed in the status area, but the purpose of this display is to inform the user of where he is in the hierarchy. There is neither a description nor a suggestion in Croy of the user being able to combine the menu items displayed in the status area. The sequence is simply displayed, without provision for storage in a non-volatile memory section, responsive to further selection by the user.

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The first step in the solution implemented by the present invention is to store and display each function in sequence, and then to permit selection and non-volatile storage of a selection from the displayed combination of functions. This is set forth in independent claim 1. Several concrete examples may help illustrate the scope of claim 1. First, suppose that the present invention is applied to use of a mobile phone to access the Internet. With a conventional communication device such as a mobile phone, accessing a particular site on the Internet typically requires a plural sequence of key operations for the following steps: returning to the menu, selecting the browser function, and inputting the address for a specific site. This must be repeated each time a site is accessed. It is particularly laborious on a mobile phone to use the ten key pad to input an address. On the other hand, in accordance with the present invention, the successive sets of key operations (e.g. returning to the menu; selecting the browser function; inputting the address for a specific site) can each be stored and displayed as a separate combination. For example, a multi-line display might show on successive lines: returning to the menu, selecting the browser function, and a specific site address. In accordance with the invention, the user can store the displayed series of selected key-input information combinations as an operational procedure. Furthermore, this operational procedure can be reviewed and edited on the display. For example, the site address can be corrected, or a new site address can be input by making changes in the existing site address, and the entire operational procedure may be stored as a different operational procedure for accessing the new site. Thus, as further noted in the specification (at page 10, line 4, to page 11, lines 5), application of the invention can improve the functionality and convenience of user operation of a communication device such as a mobile phone.

A second example is application of the invention to another type of communication device, such as a remote control device for a television recorder.

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Consider the task of using the remote control device to set up the recorder to record a desired television program. In the conventional remote control device, each time a program is set for recording it is necessary to enter a plural sequence of key operations for the following steps: returning to the menu, selecting the desired channel, and setting the starting and ending times for the desired program. These key operations must be repeated each time a program is to be recorded. By contrast, in accordance with the present invention, the successive sets of key operations (e.g. returning to the menu; selecting the desired channel, and setting the starting and ending times for the desired program) can each be stored and displayed as a separate combination. For example, a multi-line display might show on successive lines: returning to the menu, the desired channel that has been selected, and the starting and ending times for the desired program. As with the prior example of the mobile phone, the user can store the displayed series of selected key-input information combinations as an operational procedure. Furthermore, this operational procedure can be reviewed and edited on the display, and a different television program can be reserved simply by changing the channel and starting and ending times, and then executing the revised operational procedure stored on the communication device.

Only by application of these teachings of the present invention to Croy – clearly, an example of hindsight – can there be a suggestion of the concept of combining several of the Croy menu selection steps as an “operational procedure.” Croy itself provides no such teaching or suggestion. Nor does Croy provide for the user to select the combination as an operational procedure, nor does Croy provide for storage of the selected combination (e.g. the navigation history displayed in the status area) in non-volatile memory, nor does Croy provide for execution of such a stored combination.

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It will be observed, with reference to Figure 2 of the present invention, that there may be a repetitive cycle of "key-input information fixation" at step S7, with storage (at step S8) and display (at S10), until there is a "NO" following key-input information at step S9 and a functional name is assigned. Thus there may be a series (from repetition of the storage and display steps) of combinations of key-input information, for example, each combination at S10 being displayed on a line on the display 3 (see page 7, line 8, to page 8, line 4), with the functional name being assigned to the series of combinations. Nothing of this nature is disclosed by Croy, which describes a display methodology for navigating through a hierarchy of menus. If the present invention were applied to Croy, a sequence of navigation steps could be stored as a combination, and a series of such combinations could be stored, displayed for review and editing, and assigned a functional name for recall and further review and, if edited, assignment of a new functional name. There is no such suggestion in Croy. The claims have been amended to clarify the distinctions between Croy and the present invention.

Consequently, contrary to the analysis provided by the Examiner, the Croy reference does not anticipate the present invention as described in claim 1, which is therefore believed to be in allowable form. The remaining claims, being dependent from an allowable claim, are therefore also believed to be allowable.

As to the additional limitations provided in the dependent claims, it should be noted that Croy does not provide them. This is because the limitations in the dependent claims are based upon the elements of independent claim 1, and has been shown above these elements do not read on the Croy disclosure. In particular, the combination of keys input by the user are not simply stored and displayed. In Croy, the next step for the user is a further navigational step, which changes the display. In the present invention, by contrast, there is a non-volatile memory section for storing

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key-input information as an operational procedure. It should be noted that the "operational procedure" is not simply the key-input information that has been displayed. Rather, the content of the operational procedure is selected by the user from the displayed key-input information, as described above. And there is a non-volatile memory section for storage. The storage of an operational procedure, selected by the user, has no parallel in Croy. While Croy provides for download of new menus and new menu items, these are provided by the sources of programming material. There is no suggestion in Croy that any new menu items would be responsive to selection by the user/navigator of a sequence of navigation steps to be collapsed into a single menu item. Claim 1 has been amended, by omission of superfluous intervening words, to emphasize the foregoing point concerning storage in a non-volatile memory section of key-input information selected by the user from the displayed key-input information.

Therefore, the assignment of a functional name to a series of selected key-input information combinations (as in claims 3 and 4) cannot be shown in Croy because Croy does not show the non-volatile storage of a user selection of keys in the first place. The same comment may be made as to the allocation of a softkey (claims 5-7) or as to the display of a start indication (claims 8-12) or as to the email application (claims 13-17) or as to the Internet link (claims 18-22). While it is true that Croy provides for user navigation to menu items that may provide all these functions, there is no provision in Croy for a user to combine menu items into a single menu item, much less to do so conveniently as provided in the present invention.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1-22 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400

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(fax: 703-787-7557; email: clyde@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

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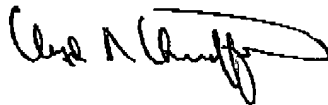
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Respectfully submitted,



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